U.S. Environmental Protection Agency
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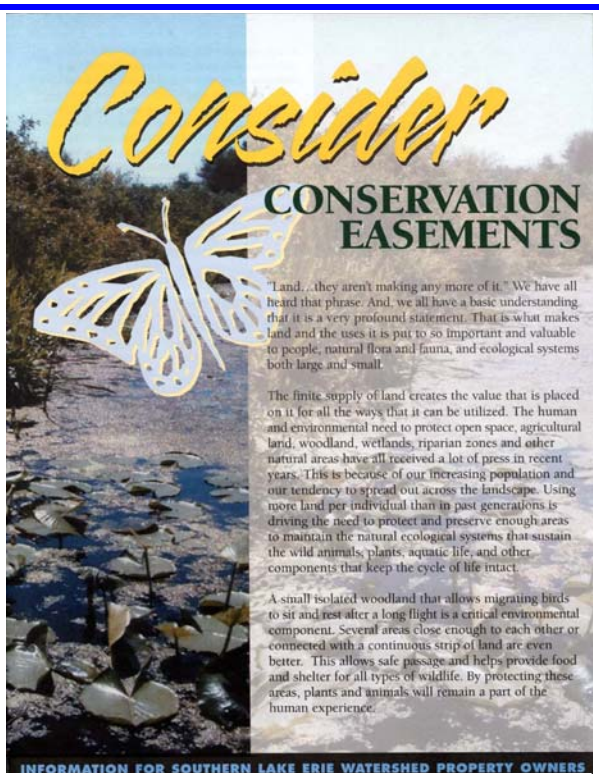
Consider Conservation Easements

With funding from GLNPO, USEPA's Cleveland Office assisted Lake Erie basin partners in producing a new brochure, "Consider Conservation Easements." The partners involved in developing the brochure are the Cuyahoga River Remedial Action Plan, Cuyahoga Soil and Water Conservation District, Natural Resources Conservation Service, Northeast Ohio Areawide Coordinating Agency, and the Ohio Environmental Protection Agency. The brochure is intended for Southern Lake Erie watershed property owners. It defines the different easements, lays out reasons why this is a valid option for homeowners, and lists the 53 land trusts, Soil and Water Conservation Districts, and conservancies, and agencies that are able to hold or obtain conservation easements in the Michigan, Indiana, Ohio, Pennsylvania, and New York portions of the Lake Erie basin. Copies of the brochure may be obtained by calling the EPA Cleveland Office at 440-250-170, or e-mailing



Consider Conservation Easements Brochure Cover

Larry Brail at brail.lawrence@epa.gov. (Contact: Karen Rodriguez, 312-353-2690, rodriguez.karen@epa.gov)

Scientists Plan Lake Erie Work

A series of meetings were held from November 10th to 14th at Windsor, Ontario, to discuss past and future science efforts on Lake Erie. The Lake Erie Trophic Structure Study, funded largely by GLNPO, was the subject of the November 10 meeting. Study participants and others, discussed results of measurements made in Lake Erie during 2002 and 2003. Among the topics of discussion were whether phosphorus is now less limiting than other factors in control-

ling primary production, whether we are able to determine the bioavailability of phosphorus that enters the lake from the main watersheds vs. that entering from the Detroit River, and how important the near-shore:offshore connection is in determining production in the central basin. The second and third days of the meeting focused on the most serious questions that required additional research during the upcoming years. Zebra/quagga mussel densities and their overall affect on the nutrients and plankton in the nearshore and offshore were viewed as a key issue, as were the topics discussed on the first day of meetings.

A meeting of Canadian and U.S. federal, state and provincial agencies was held in Windsor, Ontario, on November 13th to identify potential supplemental monitoring or research to be conducted on the Lake Erie basin during 2004. Several information needs related to the Lake Erie LaMP and managerial decision-making were discussed. Final consensus for project elements that might be implemented by EPA/GLNPO and Environment Canada centered on 1) a comprehensive survey for the distribution and abundance of dreissinid mussels on the lake bottom, both nearshore and offshore, 2) quantitative loading estimates of phosphorus from all sources, plus the relative proportions that are bioavailable. (Contact: Glenn Warren, 312-886-2405, warren.glenn@epa.gov or Paul Bertram, 312-353-0153, bertram.paul@epa.gov)

Mudpuppy Probes Saginaw River

On November 21st, the R/V Mudpuppy was in Bay City, Michigan to assist the Michigan Department of Environmental Quality (MDEQ) with assessing the nature and extent of PCB and dioxin contamination present in the sediments on the Saginaw River. Two surficial ponars and four cores were collected to follow up with a post-remediation sediment assessment, led by MDEQ, which occurred in September of this year. This concluded the sampling season for the Mudpuppy, over which time a total of 11 surveys were conducted to better characterize sediment contamination in the Great Lakes basin. The Mudpuppy based out of Bay City, Michigan will recommence sampling operations next April. (Contact: Mary Beth G. Ross, 312-886-2253, giancarlo.marybeth@epa.gov)

Ship Makes Its Way Up Saginaw River

International Education

Narayan Desai, the organizer of the Society for Ecological Restoration (SER) in India, visited GLNPO offices December 1st and 2nd, to gather materials from EPA to add to his library of resources used by tribal schools and more than 400 students. GLNPO provided two boxes full of brochures and books two years ago which are in constant use by school children. Two or three boxes of books and materials were gathered from GLNPO, Public Affairs, Office of International Activities and the Water Division and will be shipped to Mr. Desai. In addition, Mr. Desai spoke to Jon Grand and Janette Marsh about potential collaboration based on the Memorandum of Understanding (MOU) between EPA and the Government of India. Mr. Desai had the

opportunity to meet Deputy Regional Administrator Bharat Mathur, who has traveled extensively in India for EPA and was one of the authors of the MOU.
(Contact: Karen Rodriguez, 312-353-2690, rodriguez.karen@epa.gov)

Lake Guardian Draft Schedule

The draft 2004 schedule for GLNPO's 180-foot research vessel, the *R/V Lake Guardian*, is posted at: http://www.epa.gov/glnpo/guard/schedule_2004.html. This schedule includes only the basic monitoring program surveys. Other surveys and research cruises may be added to this schedule in the future as demand and budget permit.
(Contact: George Ison, 312-353-1669, ison.george@epa.gov or Glenn Warren, 312-886-2405, warren.glenn@epa.gov)

USEPA GLNPO's *R/V Lake Guardian*

Asian Carp Rapid Response Plans

Two species of Asian carp that are nearing Lake Michigan have the potential to harm sport and commercial fishing in the Great Lakes. The bighead and silver carp, native to Asia, were brought to the United States in the 1970s for use in aquaculture. These fish escaped from ponds during flood events and have spread into the Missouri, Mississippi, and Illinois rivers. Working cooperatively with GLNPO, the Illinois Department of Natural Resources and others, the U.S. Army Corps of Engineers installed an electric dispersal barrier on the Chicago Sanitary and Ship Canal designed to prevent migration from the Illinois River into Lake Michigan. A monitoring program is in place to test the barrier's effectiveness.

An Asian Carp Rapid Response Team was formed to evaluate alternatives for what to do in case the electric barrier should fail to do its job. The Team met on December 4th to update its members on the current status of monitoring, toxicity testing results, the response plan trigger, outreach strategy, and barrier developments. Among the alternatives being evaluated is the temporary use of non-persistent toxic chemicals. Studies are underway to test the relative effectiveness of different toxic chemicals. The Corps of Engineers updated the group on barrier developments including: implementation of improvements in the monitoring program, and preliminary results of a study on how canal traffic affects the barrier's electrical field.

For more information on the Chicago Sanitary and Ship Canal Dispersal Barrier see the May 2002 and February 2003 issues of the Significant Activities Report.
(Contact: Elizabeth Murphy, 312-353-4227, murphy.elizabeth@epa.gov)

Seeing the Forest and the Trees

On December 16th and 17th, U.S. and Canadian foresters met in Chicago to review a list of indicators for the health of Great Lakes forests. Canadian and U.S. foresters from federal, State/Provincial agencies and industry were in attendance. The unprecedented meeting was the first time these groups representing diverse conservation and commerce interests sat down around a

table to discuss their common interests and to share their expertise. The meeting highlighted differences in how different measures of forest ecosystem health were interpreted.

The participants agreed to work together to develop an indicator suite for forests for the upcoming 2004 State of the Lakes Ecosystem Conference (SOLEC). They will continue the discussions via e-mail and produce a white paper for SOLEC that will outline discussion points and assess the state of Great Lakes forests based on just one category of indicators, Conservation of Biological Diversity, for which data exists. Data availability will also be determined over the coming months.
(Contacts: Karen Rodriguez, 312-353-2690, rodriguez.karen@epa.gov; or Paul Bertram, 312-353-0153, bertram.paul@epa.gov)

Tracking Toxics Reductions

The semi-annual Great Lakes Binational Toxics Strategy (GLBTS) Stakeholder Forum was held December 16th in Chicago to learn of progress in implementing the GLBTS. (The GLBTS set a number of toxics reduction challenge goals for the United States and Canada). Over 100 stakeholders from government, industry, and non-governmental organizations were in attendance. Two keynote speakers were featured:

- Dr. Paul Whylie, United Nations Environment Programme, presented their efforts to address persistent toxic substances world-wide through regionally based assessment and prioritization
- Dr. Philip Cook from USEPA's Duluth, Minnesota research laboratory presented findings of his study of how dioxin contamination affected Lake Ontario trout populations.

These presentations will soon be posted on the GLBTS web site at http://www.epa.gov/glnpo/bns/index.html.
(Contact: Ted Smith, 312-353-6571, smith.edwin@epa.gov)

Public Lands Waste Cleanup

In a project primarily funded by USEPA, the Minnesota Pollution Control Agency (MPCA)) and Minnesota Office of Environmental Assistance have taken the lead on a project to collect household wastes dumped on public lands. This project is part of the state's commitment to the Lake Superior Binational Program and its Zero Discharge Demonstration. The MPCA offered $5,000 contracts to counties in the Lake Superior watershed to carry out abandoned waste collections on public lands. The link to abandoned waste and the critical chemicals from the Lake Superior Lakewide Management Plan (LaMP) can be made through a variety of products. There was special interest in white goods (large household appliances like refrigerators and washers) since some models contain mercury switches or PCB ballasts or capacitors. Other critical chemicals associated with abandoned waste include lead and other heavy metals as well as some of the organic chemicals in LaMP Stage 2.

An abandoned waste site in St. Louis County
(photo courtesy of Terry Soderberg)

Lake and St. Louis Counties participated in the project. Between the two counties, about 55 tons of trash were removed from 28 sites on public lands and properly disposed or recycled. The collections included 277 tires, 35 white goods (mostly refrigerators and ranges), 8 lead acid batteries, 150 pounds of hazardous waste, 13 TVs and computer monitors, 90 fluorescent lamps, a meth lab and an assortment of solid waste and demolition waste. A report is being prepared by the MPCA
(Contact: Elizabeth LaPlante, 353-2694, laplante.elizabeth@epa.gov; or Carri Lohse-Hanson, 651-296-9134, carri.lohse-hanson@pca.state.mn.us)

Getting Mercury Out in Minnesota

Using grants of up to $5,000 from the Minnesota Pollution Control Agency (MPCA), seven cities in the Minnesota portion of the Lake Superior basin completed projects to reduce mercury use and release. Projects included purchasing and installing 22 amalgam separators to separate mercury-containing amalgam from dental offices, and running fever thermometer swaps which allowed consumers to trade-in their mercury thermometers for non-mercury models. A home heating thermostat swap in the small town of Floodwood took in 113 mercury thermostats. Another city chose to change out mercury vapor security lights with low mercury sodium vapor lights. Most distributed mercury awareness materials as part of their projects.

Inspired by these projects, the MPCA purchased and distributed 18 additional amalgam separators. At this point, MPCA believes all dentists in the Minnesota portion of the basin that want separators have them due to the efforts of the Western Lake Superior Sanitary District, other cities, the Minnesota Dental Association and the MPCA.

Amalgam used for dental fillings can be a source of mercury contamination of lakes and streams

The MPCA has also purchased digital programmable thermostats for a future thermostat swap.
(Contact: Elizabeth LaPlante, 353-2694, laplante.elizabeth@epa.gov; or Carri Lohse-Hanson, 651-296-9134, carri.lohse-hanson@pca.state.mn.us)

We welcome your questions, comments or suggestions about this month's Significant Activities Report. To be added to or removed from the Email distribution of the Significant Activities Report, please contact Tony Kizlauskas, 312-353-8773, kizlauskas.anthony@epa.gov.